



MATERIAL SAFETY DATA SHEET

DATE PREPARED: April 13, 1993 REVISION NO. 004

I. PRODUCT/COMPANY IDENTIFICATION

Product Name: PPS

Empirical Formula: $C_8H_{11}NO_3S$

CA Name (Or generic identification):

CAS Number: 15471-17-7

Pyridinium, 1-(3-sulfopropyl)-,
hydroxide, inner salt

Synonyms/Trade Names:

1-(3-Sulfopropyl)-pyridinium
betaine

FOR CHEMICAL EMERGENCY

Spill, Leak, Fire, Exposure or Accident
Call Chemtrec - Day or Night
800-424-9300

Chemical Family: Pyridines

Manufacturer:

Raschig AG
Mundenheimer Strasse 100
D-6700 Ludwigshafen/Rhein
Germany

Supplier:

Raschig Corporation
5000 Old Osborne Tpke.
Richmond, VA 23231 U.S.A.
Phone No. (804) 222-9516

II. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS Number</u>	<u>%</u>	<u>PEL</u>
Pyridinium, 1-(3-sulfopropyl)-, hydroxide, inner salt	15471-17-7	min. 99	NE

PEL = Permissible Exposure Limit (OSHA)

NE = None Established

NA: Not Applicable

INA: Information Not Known/Available

ND: Not Detectable

> : Greater Than

< : Less Than

449276



III. HAZARD IDENTIFICATION

Physical Form/Color/Odor: Solid at 20°C; white crystals; odorless.

Hazard Effect and Symptoms:

Skin : May be slightly irritating.

Eye : May be irritating.

Ingestion : May be irritating to the gastro-intestinal tract.

Inhalation : May be irritating to the respiratory tract.

Other :

Chronic Toxicity:

☐ Carcinogenic

☐ Corrosive

☐ Irritant

☐ Sensitizer

☐ Toxic

☐ Highly Toxic

☐ Non-Hazardous

☐ INA

☒ Other *

*Other: No mutagenic activity recorded in Ames-test, RCC 015 028, 1982;

Target Organs/Systems: INA

☐ Respiratory

☐ Hepatic

☐ Eyes

☐ Renal

☐ Skin

☐ Blood

☐ Nervous

☐ Reproductive

☐ Other*

*Other:

Primary Routes of Entry:

☐ Skin

☒ Ingestion

☐ Inhalation

IV. FIRST AID MEASURES

Skin : Wash with plenty of soap and water.

Eye : Rinse immediately with plenty of water. Get medical attention.

Ingestion : Let drink plenty of water. Get medical attention.

Inhalation : Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

V. FIRE FIGHTING MEASURESFlash Point (Method): NAAuto-Ignition Temperature: INAFlammable Limits in Air (% Volume)

Lower: INA

Upper: INA

Extinguishing Media:☒ Dry Chemical☒ Water Fog☐ Other*☒ Regular Foam☒ CO₂

*Other:

Special Hazards/Procedures

In case of fire, formation of carbon monoxide, nitrogen oxides, toxic fumes. Wear self-contained breathing apparatus. Fine powder material may cause dust explosions.

VI. ACCIDENTAL RELEASE MEASURES

Take up by mechanical means (avoid dust formation) and place into sealed containers for adequate disposal. Do not allow to enter the sewage or ground waters. Wear appropriate protective equipment (i.e. rubber boots and gloves, safety glasses, and dust mask).

VII. HANDLING AND STORAGE

Keep containers tightly closed and dry. Handling only with appropriate protective equipment and good mechanical exhaustation. Avoid dust formation. Avoid contact with skin and eyes and breathing of dust.

VIII. ENGINEERING CONTROLS/PERSONAL PROTECTION☒ Dust Mask☐ Respirator☐ Air Mask☒ Safety Glasses☐ Goggles☐ Face Shield☒ Gloves☐ Apron☐ Full Suit☐ Other*

*Other:

Note: Protective equipment should meet OSHA specifications.

Threshold Limit Value

ACGIH: INA

OSHA : INA

IX. PHYSICAL AND CHEMICAL PROPERTIES

Freezing Point : NA	Boiling Point : NA
Specific Gravity: INA (water=1)	Bulk Density : 500-700 kg/m ³
Melting Point : 280°C	Solubility (H ₂ O) : 1500 g/l, 20°C
Vapor Pressure : NA (at 20°C)	pH (10%, 20°C) : 2-6
Vapor Density : NA (air=1)	Percent Volatile : NA
	Other:

X. STABILITY AND REACTIVITY

Stability	<u>xxx</u> Stable	Hazardous	<u>xxx</u> Will Not Occur
	___ Unstable	Polymerization	___ Will Occur

Incompatible Materials: Strong acids and bases; oxidizing agents.

Decomposition Products: Carbon monoxide; nitrogen oxides, sulfur oxides.

Conditions to Avoid : Contact with strong acids and bases, oxidizing agents.

XI. TOXICOLOGICAL INFORMATION**Acute Toxicity Data:**

Skin : Non-irritating to the rabbit skin, RCC 015 017, 1982;

Eye : Non-irritating to the rabbit eye; RCC 015 017, 1982;

Ingestion : LD₅₀: > 5000 mg/kg; rat, orally; RCC 015 006, 1983;

Inhalation : INA

XII. DISPOSAL

As special refuse in appropriate dump or special waste incinerator equipped with afterburner and scrubber. Disposal only in accordance with State, Local and Federal regulations.

XIII. TRANSPORTATION REGULATIONS

US DOT: Not Regulated

IATA/IMO: Not Regulated

Other:

XIV. REGULATORY INFORMATION

EPA TSCA Status:

☒ Listed ☐ Not Listed ☐ As Mixture by Components
☐ Low Volume Exemption (LVE) ☐ FDA Regulated

EPA SARA Title III Hazard Class (SEC. 312 / see Chapter III):
Not Applicable

EPA SARA Title III SECTION 313 (40CFR372):
Toxic Chemicals present in quantities greater than the "de minimis" levels are: NONE

Other:

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